



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,911	11/16/2001	Mark Crosbie	10012198	7932

7590 02/23/2007  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
----------

ABRISHAMKAR, KAVEH

ART UNIT	PAPER NUMBER
----------	--------------

2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/987,911

Applicant(s)

CROSBIE ET AL.

Examiner

Kaveh Abrishamkar

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 1, 2006 has been entered.
2. Claims 7-12 are cancelled. Claim 20 is added.
3. Claims 1-6, 13-20 are currently being considered.

### ***Response to Arguments***

4. Applicant's arguments filed December 1, 2006 have been fully considered but they are not persuasive for the following reasons:

Regarding amended claim 1, the Applicant argues that the Cited Prior Art (CPA), Moran (U.S. Patent 6,647,400), does not disclose at least routing an event to a template where the template comprises a sequence of connected logic nodes. This argument is not found persuasive. It is asserted that the CPA does disclose a template that comprises a sequence of connected logic nodes. As stated in the previous Office Action, there are different types of intrusions, which are checked in the CPA including SetUID buffer overflows, file name changes, and SetUID commands. Each separate check, is interpreted as a template. The CPA further disclose sensors which collect

Art Unit: 2131

information and pass it to the event database (input node) (column 8 lines 12-20), then the collected information is evaluated (filtering node) (column 8 lines 32-34), and finally an alert is either issued or the event is dropped (output node) (column 8 lines 32-35).

Therefore, it is asserted that these comprise a sequence of connected logic nodes.

Furthermore, in regards to amended claim 1, the Applicant argues that the CPA does not disclose determining a filename based on the event and outputting the event for each event indicating modification of a critical file based upon the determined filename.

This argument is not found persuasive. The CPA discloses that its intrusion detection system checks changes to system files and directories (column 11 lines 15-27), including checking for known patterns in filenames, which are known parts of attacks (column 11 lines 29-32). The particular system files, which are being checked for modification, are interpreted as the event. Furthermore, each particular system file (event) has an associated file signature that is associated with the particular system filename (column 31 lines 31-35). The CPA discloses a system for checking the signatures of a computer's system files to check for changes (column 31 lines 36-55), and outputting an alert if the file name has changed (column 32 lines 48-60). Therefore, it is asserted that the CPA does disclose the limitations of amended claim 1, and the rejection for these claims is given below.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2131

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Moran (U.S. Patent No. 6,647,400).

6. Regarding claim 1, Moran discloses:

reading an event representing at least one system call (column 7 line 65 – column 8 line 23, column 13 lines 26-42);

routing the event to a template, the event comprising multiple parameters and the template comprising a sequence of connected logic nodes comprising at least one input node, at least one filter node, and at least one output node (column 7 line 65 – column 8 line 23, column 8 lines 12-35, column 14 lines 13-31);

filtering the event, based on the sequence of logic nodes of the template, as a possible intrusion based on the multiple parameters and either dropping the event or outputting the event, the filtering comprising: (column 8 lines 33-35, column 11 lines 15-65, column 32 lines 48-59):

determining a filename based on the event (column 11 lines 29-32, column 31 lines 31-35);

outputting the event for each event indicating modification of a critical file based upon the determined filename (column 32 lines 48-60); and

creating an intrusion alert for each event output from said filtering (column 8 lines 33-35, column 11 lines 15-65, column 32 lines 48-60).

7. With respect to claim 14, Moran discloses a system for detecting critical file changes, comprising:

a processor (column 5 lines 26-42);

a memory storing instructions which, when executed by the processor, cause the processor to:

route events to a template (column 7 line 65 – column 8 line 23, column 14 lines 13-31);

wherein the event comprises one or more parameters (column 11 lines 15-65, column 32 lines 48-59); and

the template comprises a sequence of connected logic nodes comprising at least one input node, at least one filter node, and at least one output node (column 7 line 65 – column 8 line 23, column 8 lines 12-35, column 14 lines 13-31);

filter the event as either a possible intrusion based on one of the one or more parameters and either dropping the event or outputting the event (column 8 lines 33-35, column 11 lines 15-65, column 32 lines 48-59); and

create an intrusion alert if an event is output from the filter (column 8 lines 33-35, column 11 lines 15-65, column 32 lines 48-59).

8. With respect to claims 2 and 15, Moran discloses a method, wherein said filtering further comprises providing the event to the determining a file name for each event

Art Unit: 2131

comprising a parameter indicating modification of a permission bit on a file or directory (column 9 lines 33-47).

9. With respect to claims 3 and 16, Moran discloses a method, wherein said filtering further comprises providing the event to the determining a filename for each event comprising a parameter indicating opening a file for truncation (column 11 lines 15-48, column 31 lines 31-56).

10. With respect to claims 4 and 17 Moran discloses a method, wherein said filtering comprises providing the event to the determining a filename for each event comprising a parameter indicating modification of the ownership or group ownership of a file (column 9 lines 33-47, column 31 lines 30-57).

11. With respect to claims 5 and 18, Moran discloses a method, further comprising outputting an alert message for each renamed file including the filename of the file and the new filename of the renamed file (column 9 lines 33-47, column 30 lines 7-13).

12. With respect to claim 6 and 19, Moran discloses a method, comprising configuring a template based on a list of files and directories to be included or excluded based on whether the files and directories are considered unmodifiable (column 32 lines 60-67).

Art Unit: 2131

13. With respect to claim 13, Moran discloses a computer-readable medium storing instructions which, when executed by a processor, cause the processor to implement the method steps of claim 1 (column 5 lines 26-42, column 7 line 65 – column 8 line 23, column 11 lines 15-65, column 13 lines 26-42, column 32 lines 48-59).

14. With respect to claim 20, Moran discloses a system, wherein the instructions causing the processor to filter the event comprise instructions causing the processor to determine a filename based on the event and output the event for each event indicating modification of a critical file based upon the determined filename column 8 lines 33-35, column 11 lines 15-65, column 32 lines 48-60).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KA  
2/18/2007

  
AYAZ SHEKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100